



HIGH PRESSURE COMPONENTS

PRESSURE RELIEF VALVES

High Pressure, Low Flow

These valves are direct operated, differential poppet, dry spring chamber design. All ports can accept full working pressure permitting their use also as a sequence valve or back pressure controller regulator (BPR). Wetted alloys are stainless steel. Dynamic seals are UHMWPE. Static seals are Buna. Optional: Viton add-V. EPR add-E. Wrench flats are standard on adjusting screws.*



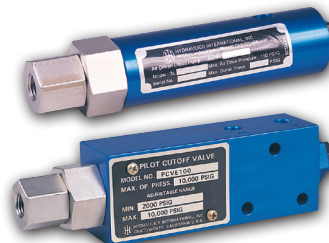
Model No.	Service		Seat	Adjustable Range (PSI)	Orifice Dia (in.)	Port	Remarks	Symbols
	Relief	BPR						
*RVL-100	Liquid	Liquid or Gas	Stainless steel	1000 thru 10,000	.070	1/4 NPT	Not bubble tight	
*RVG-100	Gas	Gas	Nylon				Bubble tight	
RV-300	Liquid or Gas		Stainless Steel	3000 thru 30,000		1/4" Super Pressure	Not bubble tight	
RV-600				10,000 thru 60,000				

*Plastic knob optional at extra cost on RVL or RVG models only. Specify with suffix "H" (e.g. RVL-100H).

PILOT CUTOFF VALVES

Sense Liquid or Gas Pressures. Provide Air Signal.

These valves perform a function similar to a pressure switch. The sensing piston or plunger movement is spring or air adjusted. When the sensed pressure is reached, a small, integral air valve shifts position cutting off, or providing, a pilot air signal. Useful for start/stop control of various pneumatically piloted devices such as HII pumps, valves and boosters. Maximum air valve pressure is 120 PSI. Sensing section alloys are stainless steel. Buna static seal standard, optional: Viton add-V. EPR add-E. (e.g. PCV-E002E).



Model No.	Adjusted By	Sensing			Air Valve		Symbols
		Nominal-Range(PSI)	Port	Max. PSI	Configuration	Ports	
PCV-002	INTERNAL SPRING LOADED BOLT	50-200	1/4 NPT	600	2 WAY Three ports convertible to NC or NO with plug provided	1/8 NPT	
PCV-020		200-2000		11,000			
PCV-100		1500-10,000		11,000			
PCV-250		5000-25,000		26,000			
PCV-E002	EXTERNAL SPANNER NUT (UNDERNEATH THE NAME PLATE)	50-200	1/4 NPT	600	3 WAY Three ports useable for either NC or NO applications	1/8 NPT	
PCV-E020		200-2000		11,000			
PCV-E100		1500-10,000		11,000			
PCV-E250		5,000-25,000		26,000			
PCV-R025	REMOTE AIR PRESSURE REGULATOR 20-100 PSI	500-2500	1/4	11,000			
PCV-R100		2000-10,000	NPT	11,000			
PCV-R250		5000-25,000	1/4" Super Pressure	26,000			

UNLOADING VALVES

Normally Open, Normally Closed, Air Pilot Actuated.

These valves open or close high pressure oil or plain water back to tank or to another line or high pressure gas to another line. High pressure section alloys are stainless steel with stainless steel ball or poppet design.



Model No.	Basic Configuration	Nominal Area Ratios	Port/Max. Pressure PSI		Reverse Flow	Flow Orifice Dia. (in.)	Symbols
			Inlet	Outlet			
UV-50	NORMALLY OPEN AIR PILOT TO CLOSE, ⁽⁴⁾ SINGLE STAGE	50:1	1/4 NPT 5000 ⁽¹⁾	1/4 NPT 4000 ⁽³⁾	BLOCKED	.213 Nom.	
UV-80		80:1	1/4 NPT 8000 ⁽¹⁾			.172 Nom.	
UV-120		120:1	1/4 NPT 12,000 ⁽¹⁾			.135 Nom.	
UV-200		200:1	1/4" Super Pressure 20,000 ⁽¹⁾			.100 Nom.	
UV-150-2	Normally closed Air pilot to open Two stage	2 nd stage 9:1 1 st stage 250:1	1/2 NPT 15,000 ⁽²⁾	1/2 NPT 10,000 ⁽³⁾	Free flow	.344 Nom. 2 stage	

NOTES: (1) Based on 100 PSI air pilot. Maximum inlet pressure will be increased proportionally with increase in air pilot pressure up to 150 PSI maximum.

(2) To open against 15,000 PSI, 60 PSI minimum air pilot required.

(3) Maximum outlet port pressure for gas service is 1500 PSI.

(4) May also be used as a relief valve. Adjust with air pressure regulator on air pilot line.

INLINE CHECK VALVES, 316 STAINLESS STEEL BODIES

High Pressure. These valves are 316 S.S. ball type and soft seat (PTFE ring) in the 1/4 NPT, 1/2 NPT, 3/4 NPT, and 1 NPT sizes; Brass poppet on S.S. seat in the 2 NPT size. Control springs hold approximately 3 PSI. Optional higher pressure springs are available in the 2" NPT unit only.



Model No.	Port	Maximum Pressure-PSI	Flow Orifice Min. Dia. (Inches)	Static Seal
CVH-025N2	1/4 NPT	15,000 Liquid / 11,250 Gas	.156	BUNA ⁽¹⁾
CVH-025S2	1/4 Super Pressure			
CVH-050N2	1/2 NPT	20,000 Liquid / 15,000 Gas	.344	PTFE
CVM-200N2	2 NPT	5,000 Liquid / 3,750 Gas	1.750	NONE

Notes: (1) Optional static seal: For Viton, add "V", for EPR, add "E" to model no.



AIR OPERATED ON / OFF VALVE

This air operated valve opens and closes high pressure liquid or gas connection. Balanced poppet, piston actuated, normally open, bubble tight design assures high reliability. Minimum actuation is a 30-PSI and Maximum is a 150-PSI. Constructed of 316-SS with a Cv=0.75

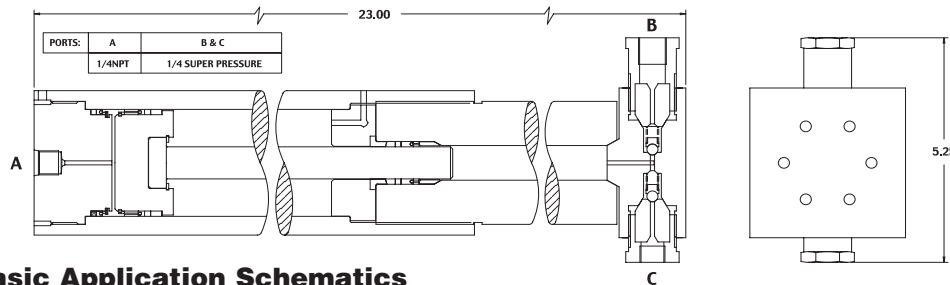
Model No.	Basic Configuration	Nominal Area Ratio	Maximum Pressure - PSI	Ports		Symbols
				Inlet / Outlet	Pilot	
AOV-100	Normally Open	100	10,000	1/4" NPT	1/8" NPT	



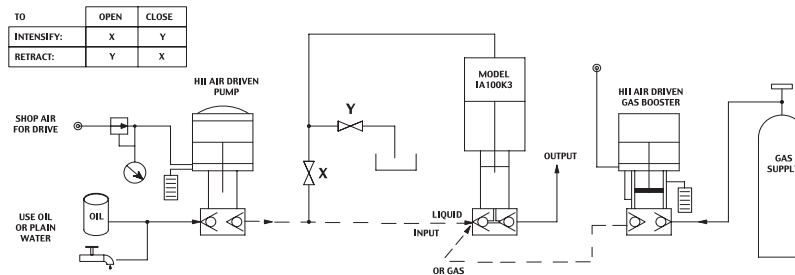
INTENSIFIER ASSEMBLY 10:1 AREA RATIO

Model IA100K3 is rated to 100,000 PSI output with a displacement of 3 cu. in./cycle. It can be used to intensify any liquid or gas compatible with 15-5 PH SS, BUNA-N and polyurethane. Minimum inlet pressures are 1500 PSI liquid; 5000 PSI gas.

The drive section consumes approx. 34 cu. in./cycle and can accept plain water or petroleum based hydraulic oil to 10,000PSI. Cycle rate should be limited to 2 cpm depending on the application.



Basic Application Schematics



GAS RECEIVERS

High Pressure. These units are normally used at the outlet of an HII Gas Booster or system to store a volume of gas for smooth, intermittent release through a pressure reducing valve.



Model No.	Max. Working	Volume Displacement (Cu. In.)	Outside Diameter (Inch)	Length (Inch)
PR-020	10,000 PSI	20	4	9 1/2"
PR-040		40	4	14"
PR-080		80	5	14 1/2"
PR-134		134	5	20 1/2"
PR-200		200	5	27 3/4"
PR-450		450	5	55 1/8"
PR2-040	20,000 PSI	40	5 1/2	14 1/2
PR2-235		235	9	27 3/4
PR2-300		300	8	31 1/2
PR2-450		450	8	44 1/8
PR2-900		900	8	81 1/4

All receivers are stainless steel and tested to 2X maximum rating and designed for a maximum burst of 4X maximum rating.

